04-19-04

Attorney Docket No. XOM-CON1

Applicants	:	Hans Thomann et al.
Application No.	:	10/666,208
Filed	:	September 18, 2003
Group Art Unit	:	2862 Confirmation No. 8301
For	:	METHOD FOR BOREHOLE MEASUREMENT OF FORMATION PROPERTIES

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

New York, New York 10020
April 15, 2004

EXPRESS MAIL CERTIFICATION

"Express Mail" Mailing Label No. EV371747182US

Date of Deposit April 15, 2004

I hereby certify that this certification and the following papers and fees:

1. Information Disclosure Statement (12 pp. - in duplicate);
2. Form PTO-1449 (8 pp. - in duplicate);
3. Copies of 125 cited references; and
4. Return postcard

are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and are addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Name: Claire J. Saintil-van Goodman

Patents
XOM-CON1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Hans Thomann et al.
Application No.	:	10/666,208
Filed	:	September 18,2003
Group Art Unit	:	2862 Conf. No: 8301
For	:	METHOD FOR BOREHOLE MEASUREMENT OF FORMATION PROPERTIES

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

New York, NY 10020
April 15, 2004

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97, applicants hereby make the following patent documents of record in the above-identified patent application:

U.S. PATENT DOCUMENTS

Weller, U.S. Patent No. 3,812,457 (May 21, 1974)
Bailey, U.S. Patent No. 4,003,017 (January 11, 1977)
Silverman, U.S. Patent No. 4,144,949 (March 20, 1979)
Klaveness, U.S. Patent No. 4,207,619 (June 10, 1980)
Katz, U.S. Patent No. 4,460,059 (July 17, 1984)
Staron et al., U.S. Patent No. 4,718,048 (January 5, 1988)
Rector, U.S. Patent No. 4,829,489 (May 9, 1989)
Widrow, U.S. Patent No. 4,849,945 (July 18, 1989)

Rector, U.S. Patent No. 4,862,423 (August 29, 1989)
Barr, Jr. et al. U.S. Patent No. 4,873,675 (October 10, 1989)
Rector, U.S. Patent No. 4,954,998 (September 4, 1990)
Ng et al., U.S. Patent No. 4,965,774 (October 23, 1990)
Katz, U.S. Patent No. 5,012,453 (April 30, 1991)
Scott et al., U.S. Patent No. 5,081,612 (January 14, 1992)
Sorrells, U.S. Patent No. 5,109,946 (May 5, 1992)
Rector, III, U.S. Patent No. 5,109,947 (May 5, 1992)
Weakley, U.S. Patent No. 5,128,866 (July 7, 1992)
Kan et al., U.S. Patent No. 5,130,949 (July 14, 1992)
Hardage, U.S. Patent No. 5,144,589 (September 1, 1992)
Hardage, U.S. Patent No. 5,144,591 (September 1, 1992)
Rector et al., U.S. Patent No. 5,191,557 (March 2, 2003)
Bowers, U.S. Patent No. 5,200,929 (April 6, 1993)
Calvert, U.S. Patent No. 5,233,567 (August 3, 1993)
Kan et al., U.S. Patent No. 5,233,568 (August 03, 1993)
Naville et al., U.S. Patent No. 5,305,285 (April 19, 1994)
Kan et al., U.S. Patent No. 5,343,440 (August 30, 1994)
Naville et al., U.S. Patent No. 5,372,207 (December 13, 1994)
Klaveness, U.S. Patent No. 5,438,170 (August 1, 1995)
Angeleri et al., U.S. Patent No. 5,511,038 (April 23, 1996)
Carrazzone et al., U.S. Patent No. 5,583,825 (December 10, 1996)
Petersen et al., U.S. Patent No. 5,585,556 (December 17, 1996)
Schilling, U.S. Patent No. 5,615,115 (May 25, 1997)
Naville et al., U.S. Patent No. 5,758,539 (June 2, 1998)
Beresford et al., U.S. Patent No. 5,798,488 (August 25, 1998)

Fabret et al., U.S. Patent No. 5,844,132 (December 1, 1998)
Neff et al., U.S. Patent No. 5,835,883 (November 10, 1998)
Gill et al., U.S. Patent No. 5,936,913 (August 10, 1999)
Lindsay et al., U.S. Patent No. 5,937,362 (August 10, 1999)
Weirich et al., U.S. Patent No. 6,176,323 (January 23, 2001)
MacDonald et al., U.S. Patent No. 6,206,108 (March 27, 2001)
Naville, U.S. Patent No. 6,023,444 (February 8, 2000)
Naville, U.S. Patent No. 6,262,941 (July 17, 2001)

OTHER PUBLICATIONS

Aleotti, L., et al, "Impact of Drill-Bit Seismic Method on Explorative Wells", EAEG-56th Meeting and Technical Exhibition, Vienna, Austria, June 6-10, 1994.

Aleotti, L., et al, "SEISBIT-Latest Applications of Seismic While Drilling Technology", 57th EAGE Conference and Technical Exhibition, Glasgow, Scotland, May 29-June 2, 1995.

Aleotti, L. et al, "Seismic While-Drilling Technology: Use and Analysis of Drill-Bit Seismic Source in a Cross-Hole Survey", Geophysical Prospecting, Vol. 47, pp. 25-39, May-June, 1999.

Bertelli, L., Savini, L., and Martera, M.D., "While Drilling Methodologies - the Integration Strategy and the Impact of E&P Activities", EAGE 59th Conference and Technical Exhibition, Geneva, Switzerland, May 26-30, 1997.

Best, A.I., "The effect of Pressure on Ultrasonic Velocity and Attenuation in Near-Surface Sedimentary Rocks", Geophysical Prospecting, Vol. 45, pp. 345-364, 1997.

Best, A.I., McCann, C., and Sothcott, J., "The Relationships Between the Velocities, Attenuations and Petrophysical Properties of Reservoir Sedimentary Rocks", Geophysical Prospecting, Vol. 42, pp. 151-178, 1994.

Borland, W. et al., "Real-Time Answers to Well Drilling and Design Questions", Oilfield Review, Vol. 9, No. 2, pp. 2-15, Summer 1997.

Borland, W.H. and Drew, J, "Drilling Hazard Risk Reduction in Brunei Using Surface and Drill Bit Seismic Data", IADC Well Control Conference for the Asia Pacific Region, Singapore, December 4-5, 1997.

Borland, W.H. et al, "Drill Bit Seismic, Vertical Seismic Profiling, and Seismic Depth Imagining to Aid Drilling Decisions in the Tho Tinh Structure-Nam Con Son Basin- Vietnam", Society of Exploration Geophysicists of Japan, Tokyo, Vol. 51, No. 1, pp. 27-45, February 1998.

Bowers, G.L., "Pore Pressure Estimation from Velocity Data: Accounting for Overpressure Mechanisms Besides Undercompaction," IADC/SPE Drilling Conference, Dallas, Texas SPE 27488, pp. 515-530, 1994.

Bowers, G.L., "Pore Pressure Estimation From Velocity Data: Accounting for Overpressure Mechanisms Besides Undercompression", SPE Drilling & Completion, pp. 89-95, June 1995.

Cadoret, T., Mavko, G., and Zinszner, B., "Fluid Distribution Effect on Sonic Attenuation in Partially Saturated Limestones," Geophysics, Vol. 63, No. 1, pp. 154-160, January-February 1998.

Christensen, N.I., and Wang, H.F., "The Influence of Pore Pressure and Confining Pressure on Dynamic Elastic Properties of Berea Sandstone," Geophysics, Vol. 50, No. 2, pp. 207-213, February 1985.

Dickinson, G., "Geological Aspects of Abnormal Reservoir Pressures in Gulf Coast Louisiana", Bulletin of the American Association of Petroleum Geologists, Vol. 37, No. 2, pp. 410-432, February 1953.

Duffaut, K. et al., "Shear-wave Elastic Impedance", The Leading Edge, pp. 1222, 1224 1226 and 1228-1229, November 2000.

Dunn, K.J., "Acoustic Attenuation in Fluid-Saturated Porous Cylinders at Low Frequencies," J. Acoust. Soc. Am., Vol. 79, No. 6, pp. 1709-1721, June 1986.

Dunn, K.J., "Sample Boundary Effect in Acoustic Attenuation of Fluid-Saturated Porous Cylinders", J.

Acoust. Soc. Am., Vol. 81, No. 5, pp. 1259-1266, May 1987.

Dutta, N.C., "Pressure Prediction from Seismic Data: Implications for Seal Distribution and Hydrocarbon Exploration and Exploitation in the Deepwater Gulf of Mexico", Norwegian Petroleum Society (NPF) Special Publication 7, pp. 187-199, 1997.

Dvorkin, J., Nolen-Hoeksema, R., and Nur, A., "The Squirt-Flow Mechanism: Macroscopic Description", Geophysics, Vol. 59, No. 3, pp. 428-438, March 1994.

Dvorkin, J., and Nur, A., "Dynamic Poroelasticity: A Unified Model with the Squirt and the Biot Mechanisms", Geophysics, Vol. 58, No. 4, pp. 524-533, April 1993.

Dvorkin, J., Mavko, G., and Nur, A., "Squirt Flow in Fully Saturated Rocks," Geophysics, Vol. 60, No. 1, pp. 97-107, January-February 1995.

Esmersoy, C. et al., "Acoustic Imaging of Reservoir Structure from a Horizontal Well", The Leading Edge, pp. 940-946, July 1998.

Garotta, R. et al., "Defining Seismic Velocities and Density from P and S (or PS) Seismic Data", SEG/EAGE Summer Research Workshop, pp. 1884-1888, October 1-6, 2000.

Gas Research Institute, "Look-Ahead Prediction of Pore Pressure While Drilling: Assessment of Existing and Promising Technologies", February, 1999.

Goldberg, D., and Zinszner, B., "P-Wave Attenuation Measurements from Laboratory Resonance and Sonic Waveform Data", Geophysics, Vol. 54, No. 1, pp. 76-81, January 1989.

Green, D.H., and Wang, H.F., "Fluid Pressure Response to Undrained Compression in Saturated Sedimentary Rock", Geophysics, Vol. 51, No. 4, pp. 948-956, April 1986.

Han, D., Nur, A., and Morgan, D., "Effects of Porosity and Clay Content on Wave Velocities in Sandstones", Geophysics, Vol. 51, No. 11, pp. 2093-2107, November 1986.

Heisig, G., Sanco, J., and Macpherson, J.D., "Downhole Diagnosis of Drilling Dynamics Data Provides

New Level Drilling Process Control to Driller", SPE 49206, pp. 649-658, September 27-30, 1998.

Jackson, M,, and Einchcomb, C., "Seismic While Drilling: Operational Experiences in Vietnam", World Oil, pp. 50, 53, March 1997.

Jogi, P.N. et al., "Field Verification of Model Derived Natural Frequencies of a Drill Sting", ETCE99-6648, pp. 1-8, 1999.

Jones, T.D., "Pore Fluids and Frequency-Dependent Wave Propagation in Rocks", Geophysics, Vol 51, No. 10, pp. 1939-1953, October 1986.

Jones, T.D., and Nur, A., "Velocity and Attenuation in Sandstone at Elevated Temperatures and Pressures", Geophysical Research Letters, Vol. 10, No. 2, pp. 140-143, February 1983.

Kamata, M. et al, "Drill-Bit Seismic a Service for Drilling Optimization", SPWLA, 38th Annual Logging Symposium, pp. 1-9, June 15-18, 1997.

Kamata, M., Underbill, W., Meehan, R., and Nutt, L., "Real-Time Seismic-While-Drilling Offer Savings, Improves Safety", Hart's Petroleum Engineer International. Vol. 70, No. 10, pp. 37-39, October 1997.

Kan, T.K., and Sicking, C.J., "Pre-Drill Geophysical Methods for Geopressure Detection and Evaluation", Development in Petroleum Science, 38, pp. 155-186, 1994.

Kozawa, T. et al., "Active SWD Using Monochromatic Wavelet", The Third Well Logging Symposium of Japan, September 24-25, pp. 1-6, 1997.

Lee, S., Shaw, J., Ho, R., Burger, J., Singh, S., and Troyer, B., "Illuminating the Shadows: Tomography, Attenuation, and Pore-Pressure Processing in the South Caspian Sea", The Leading Edge, pp. 777-782, June 1998.

Lucet, N., and Zinszner, B., "Effects of Heterogeneities and Anisotropy on Sonic and Ultrasonic Attenuation in Rocks", Geophysics, Vol. 57, No. 8, pp. 1018-1026, August 1992.

Lucet, N., Rasolofosaon, P.N.J., and Zinszner, B., "Sonic Properties of Rocks Under Confining Pressure Using the Resonant Bar Technique", J. Acoust. Soc. Am., Vol. 89, No. 3, pp. 980-990, March 1991.

Macpherson, J.D., Jogi, P., and Kingman. J.E., "Application and Analysis of Simultaneous Near Bit and Surface Dynamics", IADC/SPE 39397, pp. 857-869, March 3-6, 1998.

Manik, P., and Soedaldjo, P.A., "Prediction of Abnormal Pressure Based on Seismic Data. A Case Study of Exploratory Well Drilling in Pertamina UEP I and UEP II Work Areas", Proceedings of the Thirteenth Annual Convention, pp. 461-505, Jakarta, Indonesia, May 29-30, 1984.

Mavko, G., and Jizba, D., "The Relation Between Seismic P- and S-wave Velocity Dispersion in Saturated Rocks", Geophysics, Vol. 59, No. 1, pp. 87-92, January 1994.

Mavko, G.M. et al., "Wave Attenuation in Partially Saturated Rocks", 46th Annual International SEG Meeting, Houston, Texas, pp. 161-178, October 27, 1976.

McMillin, K, "Deepwater Generates Interesting Seismic-While-Drilling Technology", Offshore, pp. 44, 104, March 1999.

Meehan, R. et al, "Rekindling Interest in Seismic While Drilling", Oilfield Review, pp. 4-13, January 1993.

Meehan, R., Nutt, L., Dutta, N., and Menzies, J., "Seismic Information Helps Predict Drilling Hazards, Choose Chasing Point", Oil and Gas Journal, pp. 53-60, May 11, 1998.

Meehan, R.J., Nutt, L., Dutta, N., and Menzies, J., "Drill Bit Seismic: A Drilling Optimization Tool", IADC/SPE 39312, pp. 177-190, March 3-6, 1998.

Menke, W., and Dubendorff, B., "Discriminating Intrinsic and Apparent Attenuation in Layered Rock", Geophysical Research Letters, Vol. 12, No. 10, pp. 721-724, October 1985.

Morig, R., and Burkhardt, H., "Experimental Evidence for the Biot-Gardner Theory", Geophysics, Vol. 54, No. 4, pp. 524-527, April 1989.

Murphy, F., in, "Effects of Partial Water Saturation on Attenuation in Massilon Sandstone and Vycor Porous Glass", J. Acoust. Soc. Am., Vol. 71, No. 6, pp. 1458-1468, June 1982.

Nutt, L., "Drill Bit Seismic Improves Drilling Data", The American Oil & Gas Reporter, pp. 57-62, November 1997.

O'Connell, R. J., and Budiansky, B., "Viscoelastic Properties of Fluid-Saturated Cracked Solids", Journal of Geophysical Research, Vol. 82, No. 36, pp. 5719-5735, December 10, 1977.

O'Hara, S.G., "Elastic-Wave Attenuation in Fluid-Saturated Berea Sandstone", Geophysics, Vol. 54, No. 6, pp. 785-788, June 1989.

O'Hara, S.G., "Influence of Pressure, Temperature, and Pore Fluid on the Frequency-Dependent Attenuation of Elastic Waves in Berea Sandstone", Physical Review A, Vol. 32, No. 1, pp. 472-488, July 1985.

Palmer, L.D., and Traviolia, M.L., "Attenuation by Squirt Flow in Undersaturated Gas Sands", Geophysics, Vol. 45, No. 12, pp. 1780-1792, December 1980.

Parra, J.O., "The Transversely Isotropic Poroelastic Wave Equation Including the Biot and the Squirt Mechanisms: Theory and Application", Geophysics, Vol. 62, No. 1, pp. 309-318, January-February 1997.

Payne, Michael A., "Looking Ahead with Vertical Seismic Profiles", Geophysics, Vol. 59, No. 8, pp. 1182-1191, August 1994.

Pennebaker, E.S.Jr., "Seismic Data Indicate Depth, Magnitude of Abnormal Pressures", World Oil, pp. 73-77, June 1968.

Poletto, F. et al, "Seismic While Drilling Using PDC Signals - SEISBIT Experience and Perspectives", EAGE 59th Conference and Technical Exhibition, Geneva, Switzerland, May 26-30, 1997.

Prasad, M., and Manghnani, M.H., "Effects of Pore and Differential Pressure on Compressional Wave Velocity and Quality Factor in Berea and Michigan Sandstones", Geophysics, Vol. 62, No. 4, pp. 1163-1176, July- August 1997.

Ramaswamy, M., and loup, G.E., "Autocorrelation Estimation Using Constrained Iterative Spectral Deconvolution", Geophysics, Vol. 54, No. 3, pp. 381-391, March 1989.

Rector, J.W., "Drill Bit Wavefields", 54th Meeting and Technical Exhibition, Paris France, pp. 220-221, June 1-5, 1992.

Rector, J.W.,III, and Hardage, B.A., "Radiation Pattern and Seismic Waves Generated by a Roller-Cone Drill Bit", Geophysics, Vol. 57, No. 10, pp. 1319-1333, October 1992.

Rector, J.W., III, "Drill String Wave Modes Produced by a Working Drill Bit", 62nd Ann. Int. Mtg. SEC, Expanded Abstracts, pp. 155-158, 1992.

Rector, J.W., III, and Marion, B.P., "The Use of Drill-Bit Energy as a Downhole Seismic Source", Geophysics, Vol. 56, No. 5, pp. 628-634, May 1991.

Rector, J.W., III, Marion, B.P., and Hardage, R.A., "The Use of an Active Drill Bit for Inverse VSP Measurements", 7th ASEG Conference and Exhibition, Vol. 20, pp. 343-346, September 24-29, 1989.

Rector, J.W., Marion, B.P., and Widow, B., "Use of Drill Bit Energy as a Downhole Seismic Source", 58th Ann. Int. Mtg. Of SEG, Expanded Abstracts, pp. 161-164, 1988.

Sams, M.S., Neep, J.P., Worthington, M.H., and King, M.S., "The Measurement of Velocity Dispersion and Frequency-Dependent Intrinic Attenuation in Sedimentary Rocks", Geophysics, Vol. 62, No. 5, pp. 1456-1464, September-October 1997.

Sayers, C.M., Johnson, G.M., Schlumberger, and Denyer, G., "Predrill Pressure Prediction Using Seismic Data", 2000IADC/SPE Drilling Conference, New Orleans, Louisiana, February 23-25, 2000.

Shuttleworth, N.E., van Kerkoerle, E.J., Folmer, D.R., and Foekema, N., "Revised Drilling Practices, VSS-MWD Tool Successfully Addresses Catastrophic Bit/Drillstring Vibrations", IADC/SPE 39314, pp. 925-933, March 3-6, 1998.

Spencer, J.W., Jr., "Bulk and Shear Attenuation in Berea Sandstone: The Effects of Pore Fluids", Journal of Geophysical Research, Vol. 84, No. B13, pp. 7521-7523, December 10, 1979.

Spencer, J.W., Jr., "Stress Relaxations at Low Frequencies in Fluid-saturated Rocks: Attenuation and Modulus Dispersion", Journal of Geophysical Research, Vol. 86, No. B3, pp. 1803-1812, March 10, 1981.

Tittman, B.R. et al. "Dissipation of Elastic Waves in Fluid Saturated Rocks", Physics and Chemistry of Porous Media, American Institute of Physics, pp. 131-143, 1984.

Tittmann, B.R., Nadler, H., Clark, V.A., and Ahlberg, L.A., "Frequency Dependence of Seismic Dissipation in Saturated Rock", Journal of Geophysical Research Letters, Vol. 8, No. 1, pp. 36-38, January 1981.

Todd, T., and Simmons, G., "Effect of Pore Pressure on the Velocity of Compressional Waves in Low-Porosity Rocks", Journal of Geophysical Research, Vol. 77, No. 20, pp. 3731-3743, July 10, 1972.

Tutuncu, A.N., Podio, A.L., and Sharma, M.M.. "Nonlinear Viscoelastic Behavior of Sedimentary Rocks, Part II: Hysteresis Effects and Influence of Type of Fluid on Elastic Moduli", Geophysics, Vol. 63, No. 1, pp. 195-203, January-February 1998.

Tutuncu, A.N., Podio, A.L., Gregory, A.R., and Sharma, M.M., "Nonlinear Viscoelastic Behavior of Sedimentary Rocks, Part I: Effect of Frequency and Strain Amplitude", Geophysics, Vol. 63, No. 1, pp. 184-194, January-February 1998.

Vo-Thanh, D., "Effects of Fluid Viscosity on Shear-Wave Attenuation in Saturated Sandstones", Geophysics, Vol. 55, No. 6, pp. 712-722, June 1990.

White, J.E., "Biot-Gardener Theory of Extensional Waves in Porous Rods", Geophysics, Vol. 51, No. 3, pp. 742-745, March 1986.

Williams, D.M. et al, "The Long Spaced Acoustic Logging Tool", SPWLA 25th Annual Logging Symposium, June 10-13, 1984.

Winkler, K.W., "Dispersion Analysis of Velocity and Attenuation in Berea Sandstones", Journal of Geophysical Research, Vol. 90, No. B8, pp. 6793-6800, July 10, 1985.

Winkler, K.W., "Frequency Dependent Ultrasonic Properties of High-Porosity Sandstones" Journal of Geophysical Research, Vol. 88, No. B11, pp. 9493-9499, November 10, 1983.

Winkler, K.W., and Nur, A., "Seismic Attenuation: Effects of Pore Fluids and Frictional Sliding", Geophysics, Vol. 47, No. 1, pp. 1-15, January 1982.

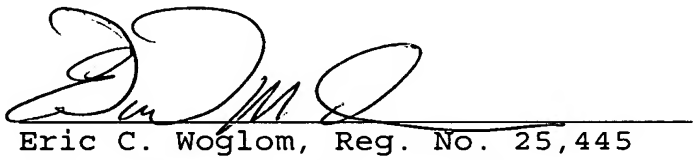
Complete copies of all but one of the aforementioned patent documents and other publications, which are listed on the accompanying Form PTO-1449 (submitted in duplicate), are enclosed herewith. Applicants respectfully note that Garotta, R. et al., "Defining Seismic Velocities and Density from P and S (or PS) Seismic Data", SEG/EAGE Summer Research Workshop, pp. 1884-1888, October 1-6, 2000 (hereinafter, "Garotta") is being cited by applicants because Garotta was considered by the Patent and Trademark Office during the examination of U.S. Patent Application No.09/805,422 from which issued U.S. Patent No. 6,473,696, which is the subject of applicants' September 18, 2003 request for interference with the instant application. Garotta is not available in its entirety to the applicants at this time. Applicants therefore enclose a copy of the portion of Garotta (viz., a first page that applicants presume is an abstract) in applicants' possession.

This Information Disclosure Statement is being mailed before the mailing of a first Office Action on the merits of this application. Accordingly, applicants believe that no fee is due in connection with this Statement. However, if any fee is due, the Director is hereby authorized to charge such fee to Deposit Account No. 06-1075. A duplicate copy of this paper is enclosed herewith.

It is respectfully requested that these patent documents and other publications be (1) fully considered by the Patent and Trademark Office during examination of this application; and (2) printed on any patent which may issue on this application. Applicants request that a copy of the enclosed Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication.

An early and favorable action is respectfully requested.

Respectfully submitted,



Eric C. Woglom, Reg. No. 25,445
Gene Lee, Reg. No. 55,369
Thomas J. Vetter, Reg. No. 30,597
James P. Doyle, Reg. No. 41,717
Attorneys for Applicants

Edward M. Arons, Reg. No. 44, 511
Agent for Applicants
FISH & NEAVE
Customer No. 1473
1251 Avenue of the Americas
New York, New York 10020-1105
Tel.: (212) 596-9000

EXPRESS MAILING LABEL
NO. EV371747182US

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. XOM-CON1	APPLICATION NO. 10/666,208
INFORMATION DISCLOSURE STATEMENT BY APPLICANTS	APPLICANTS Hans Thomann, et al.	CONFIRMATION NO. 8301
	FILING DATE Sept. 18, 2003	GROUP 2862

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		3,812,457	05/21/74	Weller	340	15.5	
		4,003,017	01/11/77	Bailey	340	15.5	
		4,144,949	03/20/79	Silverman	181	106	
		4,207,619	06/10/80	Klaveness	367	36	
		4,460,059	07/17/84	Katz	181	102	
		4,718,048	01/05/88	Staron et al.	367	40	
		4,829,489	05/09/89	Rector	367	82	
		4,849,945	07/18/89	Widrow	367	30	
		4,862,423	08/29/89	Rector	367	25	
		4,873,675	10/10/89	Barr, Jr. et al.	367	57	
		4,954,998	09/04/90	Rector	367	82	
		4,965,774	10/23/90	Ng et al.	367	75	
		5,012,453	04/30/91	Katz	367	57	
		5,081,612	01/14/92	Scott et al.	367	38	
		5,109,946	05/05/92	Sorrells	181	106	
		5,109,947	05/05/92	Rector III	181	106	
		5,128,866	07/07/92	Weakley	364	421	
		5,130,949	07/14/92	Kan et al.	367	27	
		5,144,589	09/01/92	Hardage	367	25	
		5,144,591	09/01/92	Hardage	367	75	
		5,191,557	03/02/93	Rector et al.	367	41	
		5,200,929	04/06/93	Bowers	367	38	
		5,233,567	08/03/93	Calvert	367	27	
		5,233,568	08/03/93	Kan et al.	367	27	
		5,305,285	04/19/94	Naville et al.	367	49	
		5,343,440	08/30/94	Kan et al.	367	27	

EXAMINER **DATE CONSIDERED**

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicants.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANTS	ATTY. DOCKET NO. XOM-CON1	APPLICATION NO. 10/666,208
	APPLICANTS Hans Thomann, et al.	CONFIRMATION NO. 8301
	FILING DATE Sept. 18, 2003	GROUP 2862

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,372,207	12/13/94	Naville et al.	175	1	
		5,438,170	08/01/95	Klaveness	181	106	
		5,511,038	04/23/96	Angeleri et al.	367	40	
		5,583,825	12/10/96	Carrazzone et al.	367	31	
		5,585,556	12/17/96	Petersen et al.	73	152.03	
		5,615,115	05/25/97	Shilling	364	421	
		5,758,539	06/02/98	Naville et al.	73	152.03	
		5,798,488	08/25/98	Beresford et al.	181	102	
		5,844,132	12/01/98	Fabret et al.	73	152.45	
		5,835,883	11/10/98	Neff et al.	702	7	
		5,936,913	08/10/99	Gill et al.	367	25	
		5,937,362	08/10/99	Lindsay et al.	702	9	
		6,176,323	01/23/01	Weirich et al.	175	40	
		6,206,108	03/27/01	MacDonald et al.	175	24	
		6,023,444	02/08/00	Naville	367	82	
		6,262,941	07/17/01	Naville	367	82	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	REF.	
		Aleotti, L. et al, "Impact of Drill-Bit Seismic Method on Explorative Wells," EAGE-56th Meeting and Technical Exhibition., Vienna, Austria, June 6-10, 1994.
		Aleotti, L. et al, "SEISBIT-Latest Applications of Seismic While Drilling Technology," 57th EAEG Conference and Technical Exhibition, Glasgow, Scotland. May 29-June 2, 1995.
		Aleotti, L. et al, "Seismic While-Drilling Technology: Use and Analysis of Drill-Bit Seismic Source in a Cross-Hole Survey", Geophysical Prospecting, Vol. 47, pp. 25-39, May-June, 1999.

EXAMINER **DATE CONSIDERED**

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicants.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANTS	ATTY. DOCKET NO. XOM-CON1	APPLICATION NO. 10/666,208
	APPLICANTS Hans Thomann, et al.	CONFIRMATION NO. 8301
	FILING DATE Sept. 18, 2003	GROUP 2862

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIAL	REF.	
		Bertelli, L., Savini, L., and Martera, M.D., "While Drilling Methodologies - the Integration Strategy and the Impact of E&P Activities," EAGE 59th Conference and Technical Exhibition, Geneva, Switzerland, May 26-30, 1997.
		Best, A.I., "The Effect of Pressure on Ultrasonic Velocity and Attenuation in Near-Surface Sedimentary Rocks," Geophysical Prospecting, Vol. 45, pp. 345-364, 1997.
		Best, A.I., McCann, C., and Sothcott, J., "The Relationships Between the Velocities, Attenuations and Petrophysical Properties of Reservoir Sedimentary Rocks", Geophysical Prospecting, Vol. 2, pp. 151-178, 1994.
		Borland, W. et al., "Real-Time Answers to Well Drilling and Design Questions," Oilfield Review, Vol. 9, No. 2, pp. 2-15, Summer 1997.
		Borland, W.H. and Drew, J, "Drilling Hazard Risk Reduction in Brunei Using Surface and Drill Bit Seismic Data," IADC Well Control Conference for the Asia Pacific Region, Singapore, December 4-5, 1997.
		Borland, W.H. et al, "Drill Bit Seismic, Vertical Seismic Profiling, and Seismic Depth Imagining to aid Drilling Decisions in the Tho Tinh Structure-Nam Con Son Basin – Vietnam," Society of Exploration Geophysicists of Japan, Tokyo, Vol. 51, No. 1, pp. 27-45, February 1998.
		Bowers, G.L., "Pore Pressure Estimation from Velocity Data: Accounting for Overpressure Mechanisms Besides Undercompaction," IADC/SPE Drilling Conference, Dallas, Texas SPE 27488, pp. 515-530, 1994.
		Bowers, G. L., "Pore Pressure Estimation From Velocity Data: Accounting for Overpressure Mechanisms Besides Undercompaction", SPE Drilling & Completion, pp. 89-95, June 1995
		Cadoret, T., Mavko, G., and Zinszner, B., "Fluid Distribution Effect on Sonic Attenuation in Partially Saturated Limestones," Geophysics, Vol. 63, No. 1, pp. 154-160, January-February 1998.
		Christensen, N.I., and Wang, H.F., "The Influence of Pore Pressure and Confining Pressure on Dynamic Elastic Properties of Berea Sandstone," Geophysics, Vol. 50, No. 2, pp. 207-213, February 1985.
		Dickinson, G., "Geological Aspects of Abnormal Reservoir Pressures in Gulf Coast Louisiana," Bulletin of the American Association of Petroleum Geologists, Vol. 37, No. 2, pp. 410-432, February 1953.
		Duffaut, K. et al., "Shear-wave Elastic Impedance", The Leading Edge, pp. 1222, 1224, 1226 and 1228-1229, November 2000.
		Dunn, K.J., "Acoustic Attenuation in Fluid-Saturated Porous Cylinders at Low Frequencies," J. Acoust. Soc. Am., Vol. 79, No. 6, pp. 1709-1721, June 1986.

EXAMINER **DATE CONSIDERED**

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicants.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANTS	ATTY. DOCKET NO. XOM-CON1	APPLICATION NO. 10/666,208
	APPLICANTS Hans Thomann, et al.	CONFIRMATION NO. 8301
	FILING DATE Sept. 18, 2003	GROUP 2862

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIAL	REF.	
		Dunn, K.J., "Sample Boundary Effect in Acoustic Attenuation of Fluid-Saturated Porous Cylinders," J. Acoust. Soc. Am., Vol. 81, No. 5, pp. 1259-1266, May 1987.
		Dutta, N.C., "Pressure Prediction from Seismic Data: Implications for Seal Distribution and Hydrocarbon Exploration and Exploitation in the Deepwater Gulf of Mexico", Norwegian Petroleum Society (NPF) Special Publication 7, pp. 187-199, 1997
		Dvorkin, J. Nolen-Hoeksema, R., and Nur, A., "The Squirt-Flow Mechanism: Macroscopic Description," Geophysics, Vol. 59, No. 3, pp. 428-438, March 1994.
		Dvorkin, J., and Nur, A., "Dynamic Poroelasticity: A Unified Model with the Squirt and the Biot Mechanisms," Geophysics, Vol. 58, No. 4, pp. 524-533, April 1993.
		Dvorkin, J., Mavko, G., and Nur, A., "Squirt Flow in Fully Saturated Rocks," Geophysics, Vol. 60, No. 1, pp. 97-107, January-February 1995.
		Esmersoy, C. et al., "Acoustic Imaging of Reservoir Structure from a Horizontal Well," The Leading Edge, pp. 940-946, July 1998.
		Abstract of Garotta, R. et al., "Defining Seismic Velocities and Density from P and S (or PS) Seismic Data", SEG/EAGE Summer Research Workshop, pp. 1884-1888, October 1-6, 2000 (Abstract).
		Gas Research Institute, "Look-Ahead Prediction of Pore Pressure While Drilling: Assessment of Existing and Promising Technologies", February 1999.
		Goldberg, D., and Zinszner, B., "P-Wave Attenuation Measurements from Laboratory Resonance and Sonic Waveform Data," Geophysics, Vol. 54, No. 1, pp. 76-81, January 1989.
		Green, D.H., and Wang, H.F., "Fluid Pressure Response to Undrained Compression in Saturated Sedimentary Rock," Geophysics, Vol. 51, No. 4, pp. 948-956, April 1986.
		Han, D., Nur, A., and Morgan, D., "Effects of Porosity and Clay Content on Wave Velocities in Sandstones," Geophysics, Vol. 51, No. 11, pp. 2093-2107, November 1986.
		Heisig, G., Sanco, J., and Macpherson, J.D., "Downhole Diagnosis of Drilling Dynamics Data Provides New Level Drilling Process Control to Driller," SPE 49206, pp. 649-658, September 27-30, 1998.
		Jackson, M., and Einchcomb, C., "Seismic While Drilling: Operational Experiences in Vietnam," World Oil, pp. 50, 53, March 1997.
		Jogi, P.N. et al., "Field Verification of Model Derived Natural Frequencies of a drill Sting", ETCE99-6648, pp. 1-8, 1999.

EXAMINER **DATE CONSIDERED**

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicants.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANTS	ATTY. DOCKET NO. XOM-CON1	APPLICATION NO. 10/666,208
	APPLICANTS Hans Thomann, et al.	CONFIRMATION NO. 8301
	FILING DATE Sept. 18, 2003	GROUP 2862

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIAL	REF.	
		Jones, T.D., "Pore Fluids and Frequency-Dependent Wave Propagation in Rocks," Geophysics, Vol. 51, No. 10, pp. 1939-1953, October 1986.
		Jones, T.D., and Nur, A., "Velocity and Attenuation in Sandstone at Elevated Temperatures and Pressures," Geophysical Research Letters, Vol. 10, No. 2, pp. 140-143, February 1983.
		Kamata, M. et al, "Drill-Bit Seismic a Service for Drilling Optimization," SPWLA, 38th Annual Logging Symposium, pp. 1-9, June 15-18, 1997.
		Kamata, M., Underbill, W., Meehan, R., and Nutt, L., "Real-Time Seismic-While-Drilling Offer Savings, Improves Safety," Hart's Petroleum Engineer International,. Vol. 70, No. 10, pp. 37-39, October 1997.
		Kan, T.K., and Sicking, C.J., " Pre-Drill Geophysical Methods for Geopressure Detection and Evaluation", Development in Petroleum Science, 38, pp. 155-186, 1994.
		Kozawa, T. et al., "Active SWD Using Monochromatic Wavelet", The Third Well Logging Symposium of Japan, pp. 1-6, September 24-25 1997.
		Lee, S., Shaw, J., Ho, R., Burger, J., Singh, S., and Troyer, B., "Illuminating the Shadows: Tomography, Attenuation, and Pore-Pressure Processing in the South Caspian Sea", The Leading Edge, pp. 777-782, June 1998.
		Lucet, N., and Zinszner, B., "Effects of Heterogeneities and Anisotropy on Sonic and Ultrasonic Attenuation in Rocks," Geophysics, Vol. 57, No. 8, pp. 1018-1026, August 1992.
		Lucet, N., Rasolofosaon, P.N.J., and Zinszner, B., "Sonic Properties of Rocks Under Confining Pressure Using the Resonant Bar Technique," J. Acoust. Soc. Am., Vol. 89, No. 3, pp. 980-990, March 1991.
		Macpherson, J.D., Jogi, P., and Kingman. J.E., "Application and Analysis of Simultaneous Near Bit and Surface Dynamics," IADC/SPE 39397, pp. 857-869, March 3-6, 1998.
		Manik, P., and Soedaldjo, P.A., "Prediction of Abnormal Pressure Based on Seismic Data. A Case Study of Exploratory Well Drilling in Pertamina UEP I and UEP II Work Areas", Proceedings of the Thirteenth Annual Convention, pp. 461-505, Jakarta, May 29-30, 1984.
		Mavko, G., and Jizba, D., "The Relation Between Seismic P- and S-wave Velocity Dispersion in Saturated Rocks," Geophysics, Vol. 59, No. 1, pp. 87-92, January 1994.
		Mavko, G.M. et al., "Wave Attenuation in Partially Saturated Rocks", 46th Annual International SEG Meeting, Houston, Texas, pp. 161-178, October 27, 1976.
		McMillin, K, "Deepwater Generates Interesting Seismic-While-Drilling Technology," Offshore, pp. 44, 104, March 1999.

EXAMINER **DATE CONSIDERED**

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicants.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANTS	ATTY. DOCKET NO. XOM-CON1	APPLICATION NO. 10/666,208
	APPLICANTS Hans Thomann, et al.	CONFIRMATION NO. 8301
	FILING DATE Sept. 18, 2003	GROUP 2862

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIAL	REF.	
		Meehan, R. et al, "Rekindling Interest in Seismic While Drilling," Oilfield Review, pp. 4-13, January 1993.
		Meehan, R., Nutt, L., Dutta, N., and Menzies, J., "Seismic Information Helps Predict Drilling Hazards, Choose Chasing Point," Oil and Gas Journal, pp. 53-60, May 11, 1998.
		Meehan, R., Nutt, L., Dutta, N., and Menzies, J., "Drill Bit Seismic: A Drilling Optimization Tool," IADC/SPE 39312, pp. 177-190, March 3-6, 1998.
		Menke, W., and Dubendorff, B., "Discriminating Intrinsic and Apparent Attenuation in Layered Rock," Geophysical Research Letters, Vol. 12, No. 10, pp. 721-724, October 1985.
		Morig, R., and Burkhardt, H., "Experimental Evidence for the Biot-Gardner Theory," Geophysics, Vol. 54, No. 4, pp. 524-527, April 1989.
		Murphy, W.F. III, "Effects of Partial Water Saturation on Attenuation in Massilon Sandstone and Vycor Porous Glass," J. Acoust. Soc. Am., Vol. 71, No. 6, pp. 1458-1468, June 1982.
		Nutt, L., "Drill Bit Seismic Improves Drilling Data," The American Oil & Gas Reporter, pp. 57-62, November 1997.
		O'Connell, R. J., and Budiansky, B., "Viscoelastic Properties of Fluid-Saturated Cracked Solids," Journal of Geophysical Research, Vol. 82, No. 36, pp. 5719-5735, December 10, 1977.
		O'Hara, S.G., "Elastic-Wave Attenuation in Fluid-Saturated Berea Sandstone," Geophysics, Vol. 54, No. 6, pp. 785-788, June 1989.
		O'Hara, S.G., "Influence of Pressure, Temperature, and Pore Fluid on the Frequency-Dependent Attenuation of Elastic Waves in Berea Sandstone," Physical Review A, Vol. 32, No. 1, pp. 472-488, July 1985.
		Palmer, L.D., and Traviolia, M.L., "Attenuation by Squirt Flow in Undersaturated Gas Sands," Geophysics, Vol. 45, No. 12, pp. 1780-1792, December 1980.
		Parra, J.O., "The Transversely Isotropic Poroelastic Wave Equation Including the Biot and the Squirt Mechanisms: Theory and Application," Geophysics, Vol. 62, No. 1, pp. 309-318, January-February 1997.
		Payne, M.A., "Looking Ahead with Vertical Seismic Profiles," Geophysics, Vol. 59, No. 8, pp. 1182-1191, August 1994.
		Pennebaker, E.S. Jr., "Seismic Data Indicate Depth, Magnitude of Abnormal Pressures", World Oil, pp. 73-77, June 1968.

EXAMINER **DATE CONSIDERED**

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicants.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANTS	ATTY. DOCKET NO. XOM-CON1	APPLICATION NO. 10/666,208
	APPLICANTS Hans Thomann, et al.	CONFIRMATION NO. 8301
	FILING DATE Sept. 18, 2003	GROUP 2862

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIAL	REF.	
		Poletto, F. et al, "Seismic While Drilling Using PDC Signals - SEISBIT Experience and Perspectives," EAGE 59th Conference and Technical Exhibition, Geneva, Switzerland, May 26-30, 1997.
		Prasad, M., and Manghnani, M.H., "Effects of Pore and Differential Pressure on Compressional Wave Velocity and Quality Factor in Berea and Michigan Sandstones," Geophysics, Vol. 62, No. 4, pp. 1163-1176, July- August 1997.
		Ramaswamy, M., and Ioup, G.E., "Autocorrelation Estimation Using Constrained Iterative Spectral Deconvolution," Geophyisics, Vol. 54, No. 3, pp. 381-391, March 1989.
		Rector, J.W., "Drill Bit Wavefields", 54th Meeting and Technical Exhibition, Paris, France, pp. 220-221, June 1-5, 1999.
		Rector, J.W. III, and Hardage, B.A., "Radiation Pattern and Seismic Waves Generated by a Roller-Cone Drill Bit," Geophysics, Vol. 57, No. 10, pp. 1319-1333, October 1992.
		Rector, J.W., III, "Drill String Wave Modes Produced by a Working Drill Bit," 62nd Ann. Int. Mtg. SEC, Expanded Abstracts, pp. 155-158, 1992.
		Rector, J.W., III, and Marion, B.P., "The use of Drill-Bit Energy as a Downhole Seismic Source," Geophysics, Vol. 56, No. 5, pp. 628-634, May 1991.
		Rector, J.W., III, Marion, B.P., and Hardage, R.A., "The Use of an Active Dill Bit for Inverse VSP Measurements," 7th ASEG Conference and Exhibition, Vol. 20, No. ½, pp. 343-346, September 24-29, 1989.
		Rector, J.W., Marion, B.P., and Widow, B., "Use of Drill Bit Energy as a Downhole Seismic Source," 58th Ann. Int. Mtg. Of SEG, Expanded Abstracts, pp. 161-164, 1988.
		Sams, M.S., Neep, J.P., Worthington, M.H., and King, M.S., "The Measurement of Velocity Dispersion and Frequency-Dependent Intrinic Attenuation in Sedimentary Rocks," Geophysics, Vol. 62, No. 5, pp. 1456-1464, September-October 1997.
		Sayers, C.M., and Johnson, G.M., Schlumberger, and Denyer, G., "Predrill Pore Pressure Prediction Using Seismic Data", 2000 IADC/SPE Drilling Conference, New Orleans, Louisiana February 23-25, 2000.
		Shuttleworth, N.E., van Kerkoerle, E.J., Folmer, D.R., and Foekema, N., "Revised Drilling Practices, VSS-MWD Tool Successfully Addresses Catastrophic Bit/Drillstring Vibrations," IADC/SPE 39314, pp. 925-933, March 3-6, 1998.
		Spencer, J.W., Jr., "Bulk and Shear Attenuation in Berea Sandstone: The Effects of Pore Fluids," Journal of Geophysical Research, Vol. 84, No. B13, pp. 7521-7523, December 10, 1979.

EXAMINER **DATE CONSIDERED**

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicants.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANTS	ATTY. DOCKET NO. XOM-CON1	APPLICATION NO. 10/666,208
	APPLICANTS Hans Thomann, et al.	CONFIRMATION NO. 8301
	FILING DATE Sept. 18, 2003	GROUP 2862

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIAL	REF.	
		Spencer, J.W., Jr., "Stress Relaxations at Low Frequencies in Fluid-saturated Rocks: Attenuation and Modulus Dispersion", Journal of Geophysical Research, Vol. 86, No. B3, pp. 1803-1812, March 10, 1981.
		Tittman, B.R. et al. "Dissipation of Elastic Waves in Fluid Saturated Rocks," Physics and Chemistry of Porous Media, American Institute of Physics, pp. 131-143, 1984.
		Tittmann, B.R., Nadler, H., Clark, V.A., and Ahlberg, L.A., "Frequency Dependence of Seismic Dissipation in Saturated Rock," Journal of Geophysical Research Letters, Vol. 8, No. 1, pp. 36-38, January 1981.
		Todd, T., and Simmons, G., "Effect of Pore Pressure on the Velocity of Compressional Waves in Low-Porosity Rocks," Journal of Geophysical Research, Vol. 77, No. 20, pp. 3731-3743, July 10, 1972.
		Tutuncu, A.N., Podio, A.L., Gregory, A.R., and Sharma, M.M., "Nonlinear Viscoelastic Behavior of Sedimentary Rocks, Part I: Effect of Frequency and Strain Amplitude," Geophysics, Vol. 63, No. 1, pp. 184-194, January-February 1998.
		Tutuncu, A.N., Podio, A.L., Gregory, A.R., and Sharma, M.M.. "Nonlinear Viscoelastic Behavior of Sedimentary Rocks, Part II: Hysteresis Effects and Influence of Type of Fluid on Elastic Moduli," Geophysics, Vol. 63, No. 1, pp. 195-203, January-February 1998.
		Vo-Thanh, D., "Effects of Fluid Viscosity on Shear-Wave Attenuation in Saturated Sandstones," Geophysics, Vol. 55, No. 6, pp. 712-722, June 1990.
		White, J.E., "Biot-Gardener Theory of Extensional Waves in Porous Rods," Geophysics, Vol. 51, No. 3, pp. 742-745, March 1986.
		Williams, D.M. et al, "The Long Spaced Acoustic Logging Tool," SPWLA 25th Annual Logging Symposium, June 10-13, 1984.
		Winkler, K.W., "Dispersion Analysis of Velocity and Attenuation in Berea Sandstones," Journal of Geophysical Research, Vol. 90, No. B8, pp. 6793-6800, July 10, 1985.
		Winkler, K.W., "Frequency Dependent Ultrasonic Properties of High-Porosity Sandstones," Journal of Geophysical Research, Vol. 88, No. B11, pp. 9493-9499, November 10, 1983.
		Winkler, K.W., and Nur, A., "Seismic Attenuation: Effects of Pore Fluids and Frictional Sliding," Geophysics, Vol. 47, No. 1, pp. 1-15, January 1982.

EXAMINER **DATE CONSIDERED**

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicants.